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May 22, 2013 ***VIA ELECTRONIC & FEDERAL EXPRESS***

Ms. Suzanne Dietrick, Chief
Mail Code 401-04P
Office of Dredging and Sediment Technology
Site Remediation Program
Department of Environmental Protection
501 E. State Street, Second Floor
Trenton, New Jersey 08609

Re: River Mile 10.9 Removal Action of the Lower Passaic River (LPR)
Waterfront Development Permit Equivalency Submission
DEP File No. 0232-05-0001.2; Activity No. 13001 WFD

Dear Ms. Dietrick:

de maximis, inc. is submitting this response on behalf of the Cooperating Parties Group (CPG) in follow-up to your April 26, 2013 letter. Our response consists of the following four elements:

- Request that NJDEP modify a portion of the project description text contained in its April 26 letter for the River Mile (RM) 10.9 Removal Action as follows:
  - April 26, 2013 Description: "... Dredged material is proposed to be loaded into containers and transferred via truck to the off-site upland processing facility..."
  - Requested modification: "... Dredged material is proposed to be loaded into barges and transferred over water to the off-site upland processing facility..."

- Response to Attachment B condition, "*The applicant must physically determine the n values in the proposed dredging area prior to the start of any work. This is because reliance on a report that utilized altered n values in the existing condition for calibration purposes is not valid. In addition, the applicant must demonstrate that the n values of the proposed cap material match the existing n values with a tolerance of +/- 0.002. This data must be submitted to the Department for verification prior to the start of any work.*"
  - Response consists of five (5) copies of a hydraulic modeling report from Moffatt & Nichol (M&N) entitled, "*River Mile 10.9 Removal Action New Jersey: Impact of RM 10.9 Cap Roughness during Storm Conditions Using the Delft3D Numerical Model of the Upper LPR.*" M&N utilized the Delft3D model to predict flooding patterns in the Lower Passaic River (LPR). The Delft3D analysis shows a minimal flood response (<0.2 inches maximum water elevation rise) to a 100 year storm using the proposed cap materials with a Manning coefficient of 0.025 for the RM 10.9 Removal Action area. Even if the cap's roughness is varied by more than the 0.002 Manning units that NJDEP has stated it will allow, the maximum LPR response always stays less than 1 inch rise in water elevation. For example the model shows that a roughness differential of 0.012 Manning units between the cap and surrounding sediment will produce less than a 0.9 inch maximum upstream rise of water elevation. Furthermore should the cap

prove smoother than the surrounding sediment by as much as 0.005 Manning units, there will be no measurable change in downstream water elevations for 100 year storm flows.

- Review of USGS estimates of Manning roughness coefficients for typical river bed materials and sand shows that the engineered cap's roughness will vary from existing sediment by significantly less than the 0.012 Manning unit differential modeled above, and that knowing the exact Manning number for the existing sediment is not required to conclude that the RM 10.9 Removal Action will not cause or exacerbate flooding on the LPR.
- The Delft3D model analysis is similar to, if not more accurate than, the HEC-RAS modeling originally requested by NJDEP. CPG believes this will allow NJDEP to conclude that the Removal Action is in compliance with NJAC 7.13-11.1.

- Response to Attachment B condition, "*Prior to the start of work, the applicant must submit documentation to the Department that the work areas will be isolated from flowing waters in accordance with NJAC 7:13-11.15(c)3*"
  - Response consists of five (5) copies of a Technical Memorandum from CH2M-Hill. The memo entitled "*RM 10.9 Time Critical Removal Action - Resuspension Management*" details the design basis and deployment details for silt curtains as the selected RM 10.9 Removal Action method for work area isolation. It also lists the other resuspension control Best Management Practices that the dredging contractor is required to utilize. The memo shows that the use of silt curtains for isolation and settling of sediment i.e. resuspension control is an approved method of the US Army Corps of Engineers and NJDEP, why the RM 10.9 Removal Area is an appropriate environment for silt curtains deployment, and how the silt curtains will be deployed during the Removal Action. CPG believes these details will allow NJDEP to conclude that the Removal Action is in compliance with NJAC 7.13-11.15(c)3.

- Response to the requirement, "*... the applicant must submit the Final Design Report including all construction plans, data, reports and narratives*"
  - All required information has been submitted in previous communications. Please inform us if any of the following needs to be resubmitted:
    - The signed and sealed design drawings submitted on April 19 have not been modified since that submittal and therefore are still the operative drawings.
    - The Final Design Report that incorporates NJDEP's March 22, 2013 comments on the draft of that Report, along with a "Response to (NJDEP) Comments" document, were uploaded in electronic form to the EPA SharePoint site on April 29.
    - Two hard copies of the Final Design Report were delivered to NJDEP on May 16.

If you have any questions, please contact Stan Kaczmarek or me at (908) 735-9315.

Very truly yours,

de maximis, inc.

Willard Potter
CPG Project Coordinator

cc: Stan Kaczmarek, dmi (electronic submission)
William Hyatt, CPG Coordinating Counsel (electronic submission)
Thomas Cozzi, NJDEP (w/o attachments)
Jay Nickerson, NJDEP (w/o attachments)
Roger McCready, CH2M Hill (electronic submission)
Ray Basso, USEPA Region II (electronic submission)